



Nuisance Shorebird Management Program at Grand Calumet River AOC Beaches



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Beaches in the Grand Calumet River AOC

Hammond Marina East and West Beaches

Whihala East and West Beaches

Jeorse Park Beaches
and Buffington Harbor Beach

Marquette Park Beach

Lake Street Beach

Marquette
Park





Beneficial Use Impairment (BUI) #10: Beach Closings

This BUI can be considered for removal when:

Each individual beach along the Lake Michigan shoreline in the AOC has a percent exceedance rate of no higher than 15% for the *E. coli* samples taken from Memorial Day to Labor Day for three years out of a five-year period **OR** ...



This BUI can be considered for removal when:

Percent exceedance rates at AOC beaches will be compared to percent exceedance rates for comparable Lake Michigan beaches located outside of the AOC to determine if there is a significant difference for three years out of a five-year period, and if none occurs, then the Beach Closure BUI may be suggested for removal. A significant difference is defined as no greater than a one percent variance between an individual AOC beach and an individual non-AOC beach in each of the three years relied upon for suggesting BUI removal.

Note: *Contamination that leads to exceedances within the AOC may also be attributable to sources outside the AOC.*



East Chicago Beaches Looking Back...

Jeorse Park I							
Year	2008	2009	2010	2011	2012	2013	2014
Number of Samples	72	78	75	67	63	99	99
Number of Exceedances	49	59	56	31	44	47	53
% Exceedance	68%	76%	75%	46%	70%	47%	54%
Jeorse Park II							
Year	2008	2009	2010	2011	2012	2013	2014
Number of Samples	72	78	75	67	63	99	99
Number of Exceedances	38	48	50	23	33	38	40
% Exceedance	53%	62%	67%	34%	52%	38%	40%
Buffington Harbor							
Year	2008	2009	2010	2011	2012	2013	2014
Number of Samples	72	77	75	67	63	99	99
Number of Exceedances	36	23	21	10	21	28	29
% Exceedance	50%	30%	28%	15%	33%	28%	29%



Sources That May Impact Beaches





Microbial Source Tracking Efforts

- 2010 GLRI funded MST and Beach Sanitary Survey project at all Lake Michigan Beaches
- 2014 MST project with USGS at Hammond, Whiting, East Chicago beaches and Grand Calumet River





Beach Best Management Practices (BMPs) at East Chicago Beaches

- Adopt-a-Beach Program participant
- Routine and frequent beach grooming





Beach BMPs at East Chicago Beaches

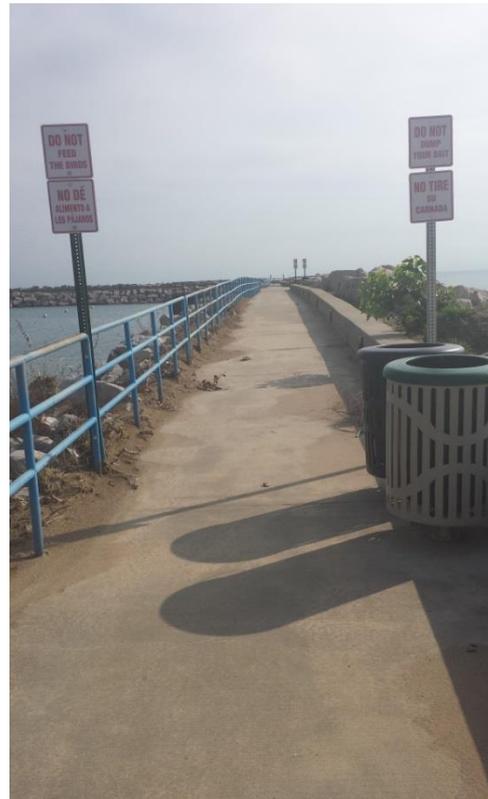
- New garbage receptacles and recycling containers





Beach BMPs at East Chicago Beaches

- New signs prohibiting feeding of birds and proper bait and fishing tackle disposal





Jeorse Park Beach Gull Management Pilot Program



- Funded by IDEM
- 4-week program July 6 through August 3, 2015
- Sunrise to 7 p.m.
- 7 days per week
- Results supported gulls likely play a large role in Jeorse Park Beach's water quality issues



2016 Jeorse Park Beach Gull Management Program (Year 1)



- \$150,000 direct funding grant
- May 1 through August 31, 2016
- Sunrise to 7 p.m.
- 7 days per week
- *Resulted in 43% overall exceedance rate from 2015 beach season*



2017 Jeorse Park Beach Gull Harassment Program (Year 2)



- \$150,000 direct funding grant
- May 1 through August 31, 2017
- Sunrise to 7 p.m.
- 7 days per week
- *Resulted in 54% decrease from 2016 beach season*



Grand Calumet River AOC Beaches

AOC Beach Exceedance Rates by Year*	2012	2013	2014	2015	2016	2017
Hammond West	13	14	7	8	4	6
Hammond East	26	25	16	10	11	6
Whihala West	15	9	12	18	20	17
Whihala East	9	9	8	8	8	3
Jeorse Park I	70	47	54	42	24	11
Jeorse Park II	52	38	40	26	13	7
Buffington Harbor	33	28	29	20	13	5
Lake Street	5	4	3	5	4	1
Marquette Park	4	4	3	5	2	0

* Exceedance rates based on number of samples collected Memorial Day weekend through Labor Day weekend



Non-AOC Reference Site Beaches

Non-AOC Beach Exceedance Rates by Year*	2012	2013	2014	2015	2016	2017
Indiana Dunes State Park West	15	7	14	12	13	8
Indiana Dune State Park East	11	7	12	14	9	8
Ogden Dunes West	3	5	11	6	5	1
Ogden Dunes East	4	5	14	5	3	1
Washington Park	11	11	15	8	5	5

* *Exceedance rates based on number of samples collected Memorial Day weekend through Labor Day weekend*



Nearshore Bird Management Program *Expanded for 2018 Beach Season*





Program Breakdown

- Pre-season *E. coli* monitoring at East Chicago and Whihala beaches
- Full dog programs and hourly bird counts at East Chicago beaches and Whihala West beach
- 3x/day gull counts at Whihala East and Hammond East and West beaches
- Eagle Eye structural deterrents at Whihala East beach and West end pier
- New trash and recycling receptacles at Hammond beaches
- New trash cans at Whihala beaches
- Post-season *E. coli* monitoring at East Chicago, Hammond, and Whiting beaches
- Post-season Gull counts
- Handheld Agrilasers and training for East Chicago, Hammond, and Whiting staff
- Public awareness and education activities and video



After the Beach is Clear of Gulls, it's Trash Pickup Time!





Thank You!



A border collie named River chases gulls off Jeorse Park Beach